



*Invest in our future*

# ISECA INTERREG IVA 2 Seas Project

## 'Information System on the Eutrophication of our Coastal Areas'

### Project overview

### Richard Santer and the ISECA partners

Boulogne sur Mer, June 30, 2014

# Outlines

- Context
- The ISECA objectives
- The ISECA actions



# ISECA motivations

Importance of the coastal zone for:

- economic activities
- for exploitation of resources and food
- preferred area for settlement and recreation

Eutrophication is a major cause of the decreasing Water Quality in the 2Seas because of:

- agricultural practices (soil nutrients entering the seas via rivers)
- industrial/traffic human activities (air pollutants deposited into waters)



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**

**'Information System on the Eutrophication of our Coastal Areas'**

# ISECA transborder issues

- Environmental problems are by nature...
- Each institution and territory runs its own database without real benefit from others
- Communication and dissemination to inform the public and different actors should be improved



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**  
**'Information System on the Eutrophication of our Coastal Areas'**

# Eutrophication or how Science can help?

- The first objective of ISECA is to develop a demonstration prototype of **an information system for the eutrophication of coastal waters** which combines in-situ, satellite information and models outputs.
- The second objective is to contribute to evaluate the socio economical impact of eutrophication.
- Communication is an interreg requirement but it for ISECA a key task

# ISECA Team



**Association pour le Développement de la Recherche et de l'Innovation dans le Nord-Pas de Calais – FR, LILLE**



**Vlaamse Instelling voor Technologisch Onderzoek- B, MOL**



**Plymouth Marine Laboratory - UK, Plymouth**



**University of Greenwich - UK,.**



**Vlaams Instituut voor de Zee - B, Oostende**



**NAUSICAA, Centre national de la mer – FR, Boulogne-sur-Mer.**



**Centre for the Economics and Management of Aquatic Resources – UK, Portsmouth.**



**The Netherlands Institute of Ecology - NL, Yerseke.**



*Invest in our future*

**ISECA INTERREG IVA 2 Seas Project**

**'Information System on the Eutrophication of our Coastal Areas'**

# ISECA objectives

Improve and share knowledge, expertise and data in the fields of:

- characterization (in situ measurements and Earth observation)
- prediction (modelisation)
- socio economical

Made available through 2 web servers the ISECA outputs:

- towards the public: WIS
- towards the indentified key actors: WAS.



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**  
**'Information System on the Eutrophication of our Coastal Areas'**

# Action 1: THE GREAT INVENTORY

- Identify actors, agencies and data collectors
- Collect requirements from these actors
- Determine the perception of targeted publics
- Develop concepts of social-economic analysis of eutrophication impacts (in the frame of climate change).



*Invest in our future*

**ISECA INTERREG IVA 2 Seas Project**  
**'Information System on the Eutrophication of our Coastal Areas'**



# Action 1: Expected results

- . Inventory of the actors and institutions concerned with coastal eutrophication.
- . Report describing the end users requirements.
- . Questionnaire and its analysis.
- . Report on the social-economic cost..



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**  
**'Information System on the Eutrophication of our Coastal Areas'**

# Action 2: EARTH OBSERVATION AND IN-SITU DATA BASE PREPARATION

- . Introduce Earth Observation in monitoring of water quality
- . Interact with end users to define specific products and indicators
- . Improve EO product based on regional knowledge of the optical properties
- . Improve and harmonize in situ measurements



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**  
**'Information System on the Eutrophication of our Coastal Areas'**

# Action 2: Expected results

- Inventory of all the existing databases in the 2Seas area
- Combination of existing and new in-situ measurements and existing and new EO products.
- Sharing of existing information by harmonizing the data and the metrology protocols.
- Improvement and validation at a regional scale of EO products.
- Provide in situ and EO data to the WAS



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**

**'Information System on the Eutrophication of our Coastal Areas'**

# Action 3: EARTH OBSERVATION WEB SERVER AND ANALYSIS OF EUTROPHICATION (WAS)

- Make the existing knowledge and data accessible for potential users and researchers.
- Design, implement and test reusable model concepts at a strategic level.
- Identify the regional impact of global change scenarios



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**  
**'Information System on the Eutrophication of our Coastal Areas'**

# Action 3: Expected results

Web-based Application Server (WAS) devoted to:

- Demonstration of the use of EO combined to in-situ measurements.
- Demonstration of eutrophication problems, analysis of selected causes and potential solutions, and exchange of reusable model building component.
- Make the information, knowledge and relevant networks of stakeholders and end users transparent.

NB: restricted access to the WAS to registered users



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**  
**'Information System on the Eutrophication of our Coastal Areas'**

# Communication and dissemination

- Share and disseminate information on actors and data collections
- Inform researchers, professionals and stakeholders, information multipliers, public at large.
- Inform these audiences of the project and its European support
- Ensure a basis for follow-up and future use of the WIS



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**

**'Information System on the Eutrophication of our Coastal Areas'**

# Action C&D: Expected results

- A cross border remote place of collaboration (WIS) dedicated to coastal waters quality providing:
  - The accessibility to the whole existing information
  - The ability to identify demands and needs (questionnaire).
- Info days to mobilise information multipliers in the 2Seas area
- A final cross border workshop that aims to summarize and promote the WIS and ISECA
- An international conference to share and promote the results of the project.



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**

**'Information System on the Eutrophication of our Coastal Areas'**

# Sustainability of ISECA

- VLIZ will maintain the WIS
- VITO will maintain the WAS
- The WAS is a demonstrator and a prototype, but it can be potentially a Data User Element (DUE) of GMES
- The “MyOcean” programme at FP7 aims to prepare the operational deployment of first Marine Core Services



*Invest in our future*



**ISECA INTERREG IVA 2 Seas Project**  
**'Information System on the Eutrophication of our Coastal Areas'**